Name of Organization: Wisconsin Department of Natural Resources

Type of Organization: State

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Project Title: West Shore of Green Bay Habitat Acquisition Project

Project Category: Habitat (Ecological) Protection and Rest

Rank by Organization (if applicable): 5

Total Funding Requested ($): 137,703 **Project Duration:** 2 Years

Abstract:

Efforts to restore and protect the integrity of the Green Bay ecosystem have been ongoing for many years. Initially these efforts consisted of habitat management and restoration under the Green Bay West Shore Wildlife Area Project. More recently, both land acquisition and habitat restoration have occurred as a result of EPA-GLNPO and other funding. But, the assaults upon the ecosystem have intensified due to the rapid expansion of the Fox River Valley human population and the huge demands placed upon land and water resources within the Western Shore of Green Bay Coastal Zone.

As the assaults upon the ecosystem have continued, it has become obvious to the Department and to it's partner groups, that a broader, more integrated ecosystem based approach to protection of the Green Bay ecosystem is necessary if this ecosystem is to maintain it's integrity.

This project, is an attempt to utilize the knowledge and other resources of the Department and it various partners, including both private and public entities, to protect and restore aquatic ecosystems within the western shore of Green Bay Coastal Zone. The project will focus upon habitat protection by fee title and easement acquisition. This project will utilize information collected during past GLNPO funded projects (Northern Pike Habitat Protection and Restoration - Phases 1 and 2).

Geographic Areas Affected by the Project

States:

- ☐ Illinois
- ☐ Indiana
- ☒ Michigan
- ☐ Minnesota
- ☐ New York
- ☐ Pennsylvania
- ☒ Wisconsin
- ☐ Ohio

Lakes:

- ☐ Superior
- ☐ Huron
- ☒ Michigan
- ☐ Erie
- ☐ Ontario
- ☐ All Lakes

Geographic Initiatives:

☐ Greater Chicago ☐ NE Ohio ☐ NW Indiana ☐ SE Michigan ☐ Lake St. Clair

Primary Affected Area of Concern: Fox River/Green Bay, WI

Other Affected Areas of Concern: Menominee River, WI

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area: Green Bay Western Shore

Other Affected Biodiversity Investment Areas:

Problem Statement:

The need for this project is demonstrated by the fact that approximately 70% of Green Bay's west shore wetlands have been lost to a combination of human and non-human factors. In addition, many square miles of more inland habitat have also been lost. Much of this wetland provided fish spawning and rearing habitat as well as nesting, rearing, and holding habitat for a variety of waterfowl and other wetland plants and animals. Environmental corridors, which historically extended many miles inland, have been disrupted by nonpoint source pollution, drain-tiling, and stream re-channeling. Large numbers of exotic fish have been introduced into the Green Bay ecosystem. Green Bay's ecosystem has been severely disrupted by wetland habitat loss and other factors.

Ecosystem disruption has resulted in the extirpation of several native fish species and in an imbalance in ecosystem relationships. Waterfowl use of the bay has decreased markedly during spring and fall migrations and production of waterfowl in coastal marshes has declined. Wetland species such as Forster's terns, common terns, black terns, bullfrogs, mink, and otter have suffered population declines. High levels of contaminants have been documented in some of these species.

Both State and Federal agencies have expressed the desire to restore and protect aquatic habitats vital for the support of healthy and diverse communities of plants, animals, and fish (Horns 1993). The scarcity of top predators, such as northern pike in Green Bay, was recognized as a problem during development of southern Green Bay's Remedial Action Plan.

Efforts to restore and protect the integrity of the Green Bay ecosystem have been ongoing for many years. Initially these efforts consisted of habitat management and restoration under the Green Bay West Shore Wildlife Area Project. More recently, both land acquisition and habitat restoration have occurred as a result of EPA-GLNPO and other funding. But the assaults upon the ecosystem have continued, and have intensified, due to the rapid expansion of the Fox River Valley human population and the huge demands placed upon land and water resources within the Western Shore of Green Bay Coastal Zone.

As the assaults upon the ecosystem have continued, it has become obvious to the Department and to it's partner groups, that a broader, more integrated, ecosystem based acquisition approach to protection of the Green Bay ecosystem is necessary if this ecosystem is to maintain it's integrity. This approach is necessary if we expect the ecosystem to be able to rebound from the assaults made upon it. This project is an attempt to utilize the knowledge and other resources of the Department and it various partners, including both private and public entities, to protect and restore aquatic ecosystems within the western shore of Green Bay Coastal Zone.

Proposed Work Outcome:

The goal of this project is to protect and restore the Green Bay ecosystem through fee title and easement acqisition. We will take a holistic approach to this effort by addressing concerns of Department of Natural Resources disciplines (water quality, fish management, wildlife management, and forestry), and those concerns expressed by other governmental entities, private groups, and official partnership groups. The focus of the project will be wetland protection, and restoration and wetland environmental corridor protection and restoration.

Habitat restoration and habitat protection activities will be buttressed by another EPA-GLNPO project, should that project be funded. That project will contain elements to support collection of information necessary to identify sites suitable for habitat protection and restoration.

Objective 1. Wetland and wetland corridor protection. Wetland and environmental corridor protection will be accomplished by fee title acquisition and easement acquisition.

Many acres of wetlands have been lost due to draining, filling and stream re-channeling. Environmental corridors have been disrupted and fragmented by residential expansion and other factors. Recent surveys indicate that specific portions of wetlands, wetland corridors, and in some cases entire sub-watersheds continue to make substantial contributions to the biota and health of the Green Bay ecosystem. The most effective long-term protection of these critical areas will be acquisition of fee title or easement rights. Acquisition priorities will be established according to recently collected biological data and according to priorities established by partnership groups and funded by the $100,000 requested in this grant and through Department Stewardship funds or non-governmental organization funds where available. Acquisition boundaries and guidelines have been established by the Department. All acquisition will be pursued according to established Department procedures.

Objective 2. Wetland Restoration. Wetland restoration will be accomplished by fee title and easement acquisition in areas having potential for habitat restoration. Restoration of prior converted and farmed wetlands will be a focus of habitat management activities, particularly in inland portions of the watersheds.

Many acres of wetland habitat within the western shore coastal zone have been degraded due to nonpoint source pollution, ditching, and drain tiling. Areas offering potential for restoration will be acquired via fee title acquisition or easement acquisition. Sites suitable for restoration will be selected and prioritized by examining recent surveys, by ongoing examination of sites, and by examining priorities of partner groups. Restoration will be accomplished by a variety of means including disruption of drain tiles, shallow scrapes, and by filling or plugging drainage ditches which are determined to be totally of human origin and not simply re-channeled naturally meandered streams.

Objective 3. Public Information. An important part of this project will be to inform the public of the benefits of the project. Educational materials will be developed and distributed. Presentations to interested groups will be provided. This will engender support and participation. Examples would be working with townships to develop ordinances to protect habitat or fostering support among local groups for wetland protection measures. Efforts will also be made to work with land developers to protect wetland habitat by establishment of that habitat as "green space" within residential development projects. The benefits of natural landscape architecture will be promoted.

Project Milestones:	Dates:
Project Start	01/2001
Hire Project Personnel	01/2001
Determine Acquisition Priorities	02/2001
Initial Contact of Landowners	04/2001
Appraise Properties	06/2001
Purchase Properties/Easements	10/2001
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Project End	12/2002

☐ Project Addresses Environmental Justice

If So, Description of How:

☒ Project Addresses Education/Outreach

If So, Description of How:

An important part of this project will be to inform the public of the benefits of the project. This will engender support and participation. Examples would be education outreach with townships to develop township ordinances to protect roadside habitat. Efforts will also be made to work with land developers to protect wetland habitat by establishment of that habitat as "green space" within residential development projects. The benefits of natural landscape architecture will be promoted.

A Basin educator will focus on outreach activities within the project area. Personal contacts and small group presentations will be used to foster communication between the Department and stakeholders. Educational programs and materials relevant to local issues will be developed and provided to watershed residents and concerned agency representatives. These educational products will focus on using the partnership process to protect local water resources.

Project Budget:

	Federal Share Requested ($)	Applicant's Share ($)
Personnel:	24,960	0
Fringe:	2,995	0
Travel:	2,500	3,443
Equipment:	0	0
Supplies:	1,000	3,443
Contracts:	0	0
Construction:	0	0
Other:	100,000	0
Total Direct Costs:	131,455	6,886
Indirect Costs:	6,248	0
Total:	137,703	6,886
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Description of Collaboration/Community Based Support:

Brown County Land Conservation Department
Outagamie County Land Conservation Department
Oconto County Land Conservation Department
Upper Green Bay Partnership Group

The Land Conservation Departments in the three affected Counties have established contacts with residents and agricultural producers in their areas. Collaboration with staff from these Departments will effectively disseminate the messages developed in this project. Water quality concerns addressed by the two priority watershed projects within the project area will be incorporated into the educational outreach materials developed under this grant.

The Partnership Group for the Upper Green Bay Basin has identified water quality as a leading issue for the Basin. This Group has expressed strong support for the Department's efforts to better educate residents and visitors of the Basin on effective means of protecting water quality. The Basin educator will work closely with this group both in developing products and in reporting progress on common goals.